

# User manual of **SUNJOY®** ceiling type Far Infrared Ray Radiating Heating Panel

Energy saving / Far infrared ray / Eco-friendly  
Anion (deodorization) / Nano silver (anti-bacterial)

[www.sunjoy.co.kr](http://www.sunjoy.co.kr)



*New Excellent  
Heating System*

**SUNJOY®**  
Energy Korea Inc.

## **Safety warning**

### ▶ **Before using**

Please read the user manual thoroughly before using.

User should follow the instruction to use the product. Following directions will give you safe and correct use to protect users from dangerous situations which may cause personal or property damages.

### ▶ **Negligence**

- Though we have tried efforts to make the user manual be correct and perfect, there may be unexpected error or omission. Our company is not responsible for the damages occurred by them. Also Energy Korea Inc., has the right to change the specification of the product at any time without notification.

- Without prior written consent of Energy Korea Inc., nobody can store, reorganize, transmit or copy whole or a part of this manual in any form or way, interpretation in other language or online.

### ▶ **Trademark notice**

- **SUNJOY**<sup>®</sup> is the trademark of Energy Korea Inc. registered in Korea.

### ▶ **Customer service**

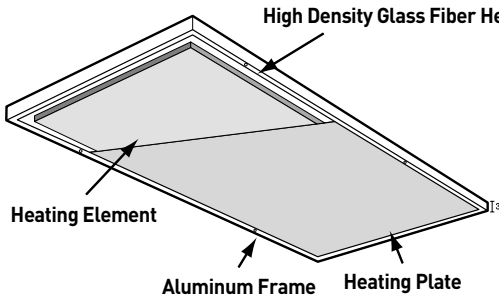
Please contact the company or agency for more information on the product or after service. Contact number is on the back cover of this manual.

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## Product construction



〈SUNJOY Far Infrared Ray  
Radiating Heating Panel〉



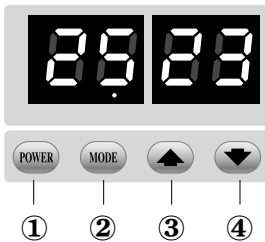
〈Thermal Controller〉

### ► SUNJOY Far Infrared Ray Radiating Heating Panel

It heats the space by generating and radiating raring far infrared ray.

### ► Thermal Controller

It controls the temperature as well as On/Off of the power.



- 1 Power: On/Off of the power
- 2 Mode: Normal/ Leave
- 3 ▲: Temperature up
- 4 ▼: Temperature down

### 1) How is it operated?

Well, look at the thermal controller. Can you see Power Button in the left? Now, press the button for 1~2 seconds and the product will operate. It will be stop if pressing the button once more.

### 2) Power is On but I don't know the function.

In a while after product operates, current indoor temperature will be displayed in LCD. Left LCD displays Normal mode and the right LCD, Standby (Leave) mode. Use it with Normal mode as a usual. Mode changes every time when pressing Mode Button.

### 3) When should I change the Mode?

When you came home after long leave, you might have problem with cold room didn't you? Then you can change into Standby Mode and set the temperature e between 13 and 16°C After that time, warm house will wait for you when you come home from leaving if you only change the mode into Standby Mode.

### 4) What is the temperature I should set for heating?

It depends on personal preference but normally 22~25°C for Normal Mode and 13~16°C for Standby Mode is most efficient.

- ※ Temperature can be set up to 99°C However it may vary in accordance with the quantity of the installation and insulating condition so it is required to discuss sufficiently before installation.

## ***Matters to be attended to use***

### **1) Please pay attention in using!**

- Child or old and feeble person should not use this product without anybody who can help and monitor to use the device safely. It is required to observe infants and toddlers not to use the product incorrectly.
- Do not set the surface of the product.
- Do not touch the surface with hand. It may cause burn.

### **2) Do not block or damage the heating surface.**

- Do not damage the heating surface.
- Do not cover the heating surface with cloth or paper tape.  
It may cause to reduce the radiation rate.

### **3) Do not disassemble and assemble the product without permission or observation of expert.**

- Each connection part should be connected using standard fittings (compressive sleeve, ring terminal). Otherwise it may cause accident including electric leakage or fire.
- Heating surface is easily damaged as it is made of soft material. It may cause malfunction of the product if it is damaged. Especially it is dangerous of electric shock if metal material or conductive material like carbon textile damage the heating surface and connected with inner heating wire.

### **4) Be careful not to use for too long time at home.**

- SUNJOY is energy saving product, however please avoid using for too long time.

## ***Product warranty***

**1) In normal installation and using condition, warranty period of the product is 2 years for panel and 1 year for thermal controller after purchasing.**

**2) Warranty doesn't cover the damage or error caused by the following.**

- Errors cause by using in the condition not covered by warranty.
- Error of the product used with unstable voltage which can't protect impulse voltage.
- Errors caused by unpermitted assembly and disassembly.
- Errors caused by foreign substance entered into inside of the product.
- Errors caused by reinstallation without observation of expert.
- Damage of the parts of the product due to mistakes of the user.  
Damage of the product due to natural disaster.(fire, sea wind, flood damage etc.)

**3) If the power cable is damaged, it should be replaced by manufacturer, service person or competent person to avoid unexpected accident.**

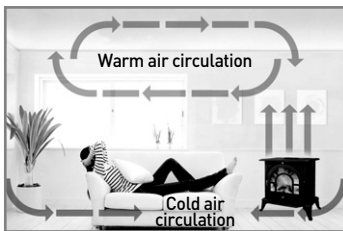
## How to use

### 1) Take notice of the difference from existing convection heating.

- Existing convection heating system requires large energy consumption and loss passing through many courses as it is indirect heating system which heats air to control the temperature.
- Ultimate purpose is to increase the temperature for body. SUNJOY of our company realizes this using radiation heating method to transmit heat into the body deeply. This gives 50~70% of energy saving effect comparing with other electric heaters.

### 2) Enjoy warmth spreading around in the room.

- Far infrared ray radiated from SUNJOY is absorbed into the subject first and it is reflected to the wall and floor, then it radiates far infrared ray around.



(Heat flow of traditional heating system)



(Heat flow of SUNJOY heating system)

- Owing to this, SUNJOY heat is maintained constantly regardless of the temperature of the place as it heats all surfaces in the room including body, furniture, wall and floor.

### 3) SUNJOY, considering heating as well as living environment

- SUNJOY is wellbeing product which improves sick house syndrome and bad odor with 73% of ammonia gas neutralization rate, 41.8% of formaldehyde gas neutralization rate plus 99.9% of antibacterial rate even in summer when SUNJOY is not operated.



## Specification

### 1) SUNJOY FIR Heating panel

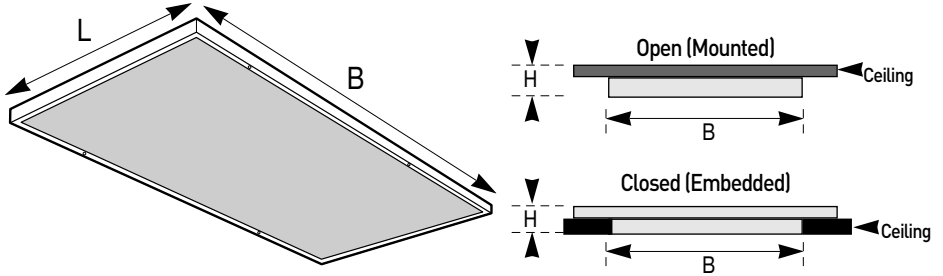
MODEL NO.	Installation Typy	Voltage (Volt)	Ampere (Amp)	Energy Consumption (Kw)	Output (Kcal)	Panel Size (m)	Size (mm)	Weight (Kg)
SR-3	Closed	220	1.31	0.290	249	0.35	598×598×30	2.4
	Open						606×606×30	
SR-4	Closed	220	1.97	0.435	374	0.53	598×898×30	3
	Open						606×906×30	
SR-5	Closed	220	2.62	0.578	497	0.71	598×1,198×30	4.1
	Open						606×1,206×300	
SR-7	Closed	220	3.34	0.735	632	0.89	598×1,498×30	4.6
	Open						606×1,506×30	
SR-8	Closed	220	3.93	0.866	745	1.07	598×1,798×30	5.9
	Open						606×1,806×30	

### 2) Thermal Controller

1	Input Power : 220VAC / 50-60Hz/ ±10%	Output Power : 220VAC / 50-60Hz
2	Input Power : 100-240VAC Universal (Option)	Output Power : 100-240VAC 50-60Hz(Optional)
3	Output capacity : 220VAC, Max. Resistance 2.5kW	Applied area : Heater
4	Sensor type : NTC 5.0kOhm/25℃, Dual direction	Relay method : Relay/20A/220VAC, On/Off
5	Display : LED/2 Digits × 2 sets / 0-99 ℃	Warning : 0-60 ℃/85%RH0 하
6	Current capacity : under 15A	

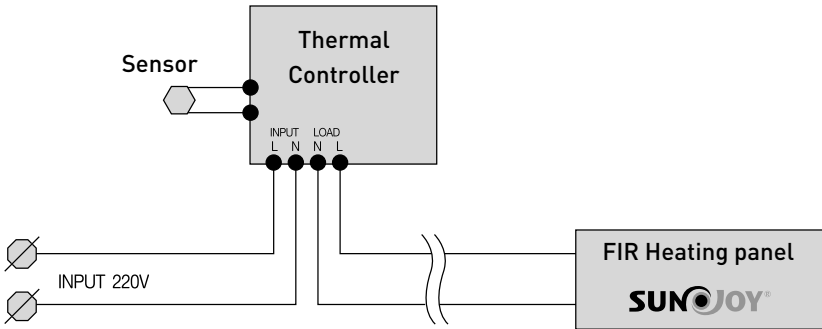
# Circuit diagram

## 1) Installation



## 2) Circuit diagram

- Heating plate should be 10~15% of ceiling area and its position should be decided considering position of lighting lamp or position of centralized heating.
- Make a 600mm of gap from outside wall and two times for each heating plate.



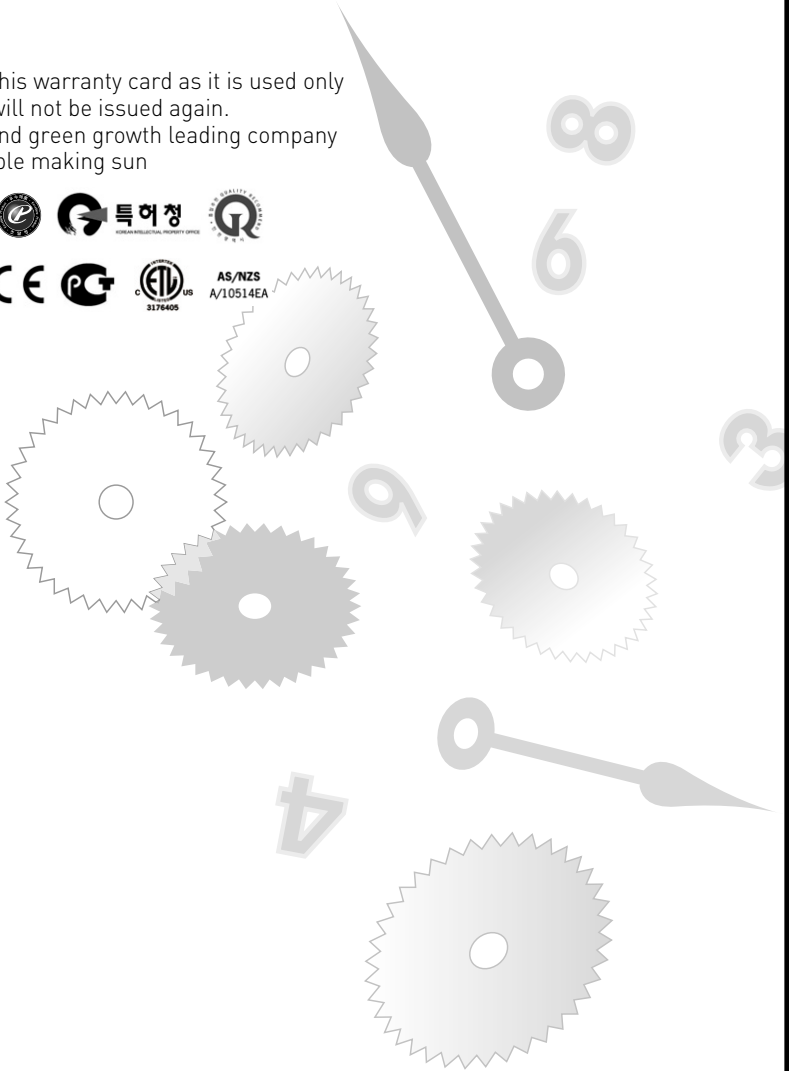
※ Pls mind that connect the panels under the capacity of panels

**Memo**

- Please keep this warranty card as it is used only in Korea and will not be issued again.
- Low carbon and green growth leading company
- SUNJOY, people making sun



AS/NZS  
A/10514EA



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**[www.sunjoy.co.kr](http://www.sunjoy.co.kr)**

1048-1 Yongjeong-Ri, Ganghwa-Eup, Ganghwa-Gun, Incheon, Korea.

Tel: (+82) 32 934 5950 Fax: (+82) 32 934 5954 Email : [info@sunjoy.co.kr](mailto:info@sunjoy.co.kr)